

## A B S T R A C T

A DEVICE FOR MIXING TWO FLUIDS AND THE USE THEREOF FOR  
COOLING A FLUID AT VERY HIGH TEMPERATURE

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The device comprises a tubular casing (2) having a  
first coupling element (5) for feeding it with a first  
fluid at a first axial end, and a second coupling element  
(6) for exhausting a mixture of the first fluid and a  
10 second fluid at a second axial end. An internal fluid  
guide duct (18a, 18b) is placed coaxially inside the  
casing (2) of the mixer. The device further includes a  
third coupling element (7) in a lateral position passing  
through the casing (2) between the first coupling element  
15 (5) and the second coupling element (6) and opening out  
into a cylindrical chamber (3) of the mixer in a position  
facing the outer surface of the guide duct (18a, 18b).  
The guide duct (18a, 18b) may be made up of two portions  
and comprises a wall having an insulating space (19a,  
20 19b) formed therein, which space is put into  
communication with the cylindrical chamber (3). The  
device of the invention can be used in particular for  
cooling supercritical water used in a process of  
oxidizing effluent in supercritical water.

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Translation of the title and the abstract as they were when originally filed by the  
35 Applicant. No account has been taken of any changes that may have been made  
subsequently by the PCT Authorities acting ex officio, e.g. under PCT Rules 37.2,  
38.2, and/or 48.3.